Arizona Department of Transportation

Environmental & Enhancement Group

Annual Report FY 2004

Mission Statement

The Environmental and Enhancement Group provides Environmental, Enhancement and Scenic Roads services for transportation activities through compliance with regulatory requirements, providing the highest level of professional technical support and education to our agency and customers, while building cooperative relationships with other government agencies and the public.

Environmental
&
Enhancement Group

Overview and Summary

This report summarizes the activities and successes of the Arizona Department of Transportation (ADOT) Environmental and Enhancement Group (EEG) for the FY 2004 period. The EEG supports ADOT Strategic Issues, and is especially involved in Strategic Issues related to Customer Service, Program Delivery, Technology, and Environmental Stewardship. The EEG currently contains 30 FTEs: 25 in Phoenix (located in three offices), three in Flagstaff, and three in Tucson, along with supplemental service personnel. In FY 2004, more than 200 projects received environmental approval, encompassing not only all projects in the 5-year Transportation Facilities Construction Program, but also Pre Design and subprogram projects, such as traffic and pavement preservation. The Group produces a variety of mandated review documentation: Environmental Assessments, Environmental Impact Statements, Categorical Exclusions, Environmental Determinations, and Environmental Overviews. In addition, EEG provides special studies for air, water quality issues, noise, hazardous materials, biology, and cultural resources in support of and separate from clearances. At any one time, there are between 300-350 environmental documents under development, supplemented by more than 150 transportation enhancement efforts. The value of projects going to bid in FY 2004 was more than $585.5 million, while the transportation enhancement projects include more than $14 million annually in support of projects that expand travel choices and enhance the transportation experience by improving the cultural, historic, aesthetic and environmental aspects of our transportation infrastructure. These projects must meet one of 12 eligible activities and must relate to surface transportation, such as, creation of bicycle and pedestrian facilities, refurbishing historic transportation facilities (for example, train depots), or providing streetscape improvements. In addition, EEG works with the state and national scenic roads programs, to designate, enhance, and interpret the multiple aspects of value along Arizona's many beautiful roadways.

Procedural Accomplishments and Improvements

The EEG staff members all participate in and benefit from the multiple opportunities for improving efficiencies, process improvements, and professional growth.

Awards and Recognition

EEG Manager Richard Duarte accepts the Arizona Quality Alliance Showcase in Excellence Award

The EEG recognizes the fine work done within its operation, and encourages its members to recognize each other's excellent effort, and to apply for recognition for their good work. On October 21, 2003, ADOT EEG received the Arizona Quality Alliance Showcase in Excellence Award. The Showcase in Excellence Award recognizes exceptional performance, innovation, and excellence in comparison to competitors or similar organizations, and cutting edge approaches that can be used as a role model.

FHWA, as part of its Vital Few Environmental Strategies Goal established in 2002, selected three new Exemplary Ecosystems Initiatives, including Arizona's comprehensive approach to wildlife protection and habitat connectivity on State Route 260 project. In December 2003, ADOT and others received the Gold Award for the US 93 Boulders Reconstruction Project, which saved nearly 20,000 cacti, and provided extensive accommodation for wildlife during project construction. The Ocean-to-Ocean Bridge in Yuma, after renovation using Transportation Enhancement funds, earned historic preservation honors from the State Historic Preservation Office, as well as FHWA's Environmental Excellence Award for 2004. The bridge was built in 1915 as the last link in a highway system that connected the Atlantic and Pacific coasts, and is considered one of Arizona's most historically significant bridges. The EEG work on the SR 68 Black Mountain design-build project received two awards: the Association of General Contractors Build Arizona award, and also the Marvin M. Black Excellence in Partnering Award. The entry submitted by EEG's Larry Lindner in the FHWA 2003 Photo Opportunity competition was selected for recognition as winner in Category III for Vegetation Management.

Larry Linder's award-winning photo

Customer Focus

The EEG emphasizes customer service as one of its top priorities. Each year, several group activities and operations reinforce this priority. One such activity was an all-staff, day-long training session held on July 14, 2004, with the purpose of enhancing staff's customer service skills, and allowed further interaction within a work group which is dealing with results of both rapid growth and physical separation of staff in offices throughout the State.

On January 22, 2004, EEG staff participated in a retreat that was designed to address a number of needs in an efficient manner. The retreat included a detailed briefing on EEG, its history, growth, and current position and responsibilities within ADOT. Each group member had the opportunity before the meeting to perform a self-assessment related to his or her own personal communication and work style. Group members met to discuss key areas of communication, job satisfaction, tools, customers, and consultants. From all the input in the meeting, an action plan was developed. This action plan has been initiated, and elements concerning job-related resources, education, and customer feedback have already been completed.

Education and Training

EEG staff attends public meetings

The EEG staff members continue to broaden their personal expertise in a variety of ways. Some members teach at local colleges and universities on either a periodic or regular basis. Staff attends classes to upgrade and enhance their professional skills. During the 2004 fiscal year, EEG sponsored eleven "brown bag" training sessions, which were attended by nearly 300 ADOT staff and consultants. The EEG continued quarterly meetings with on-call consultants to improve communication, assure consistent reporting and quality product, and to discuss any upcoming changes or modifications to policies and procedures. In addition, EEG staff hosts, on average, two formal public meetings per month to provide and receive information on various ADOT projects.

Partnering

The EEG continues to find new ways to partner with internal and outside agencies to assure improved performance. The EEG is working with ADOT Operations to develop an environmental programmatic approach to routine maintenance activities. The EEG presented several on-site training sessions for District staff, and served as members on an ADOT Environmental Stewardship team established to focus on the role of environmental processes in the highway development process. The EEG routinely partners with other agencies or educational institutions to advance knowledge by innovative program and research efforts, especially in biology, air, noise, and historic preservation. In more than one case, these research efforts also included involvement by officials from Mexico.

Technology and Strategic Planning

This year, the EEG strategic plan was updated to reflect the continuous improvements already implemented by Group leadership. The plan includes new performance measures related to the Environmental and Enhancement programs and their respective operational improvements, and makes use of detailed project information now readily available through the improved EEG project database. Additional performance measures were included to address improved productivity in the Transportation Enhancement section, educational programs, and public participation efforts.

The EEG continues to use technology to improve its operations. The EEG tracking system database was successfully converted from ACCESS 97 to SQL (Standard Query Language), and continues to undergo refinements to better serve users. This year, two new web pages were placed on line, one for Transportation Enhancement (adotenhancement.com), and one for Scenic Roads (adotscenicroads.com). Both pages link to the EEG web page, www.adotenviromental.com.

EEG Section Highlights

In addition to everyday performance of priority activities, EEG sections accomplish noteworthy additional tasks, a few of which are highlighted here.

Transportation Enhancement/Scenic Roads Section

The Transportation Enhancement (TE) program was created to enhance surface transportation activities by developing projects that go beyond the typical transportation project. If, for instance, a community desires to build pedestrian or bicycle facilities, provide urban beautification, or rehabilitate a train depot, the Arizona Department of Transportation (ADOT) and the Federal Highway Administration (FHWA) can assist those communities in reaching their goals. The TE program provides funds targeted at roadway beautification, alternate transportation modes, pedestrian safety an education, and the preservation of transportation-related cultural resources. The Scenic Roads program is developing national prominence in moving Arizona's highways into the national Scenic Roads program. In addition to processing

The small white building on the right provides a before-and after point of reference in photos below.

record numbers of applications and projects, the Transportation Enhancement/Scenic Roads Section has begun recognizing the unique nature of many of their projects, and has submitted them for numerous awards. One example of the many outstanding projects is the Mojave Wash Multi-use Pathway Project, located in the Kingman area that involved the partnering of several agencies and stakeholders and which was a recipient of the Arizona Clean and Beautiful Governor's Pride in Arizona Award.

Environmental Planning Section

In addition to performing work for all NEPA environmental reviews, this group also has developed innovations in managing biological mitigation measures, and has spearheaded enhanced project tracking and process flowcharting for EEG.

Arizona Habitat Connectivity Planning Group

As Arizona has experienced record growth in population, the need to preserve wildlife diversity is on the forefront. In the fall of 2003, wildlife experts from various agencies and organizations throughout the state came together in an effort to address wildlife habitation fragmentation within Arizona. Representatives from the Arizona Game and Fish Department, ADOT, Federal Highway Administration, Bureau of Land Management, US Fish and Wildlife Service, USDA Forest Service, Northern Arizona University, and the Wildlands Project formed the Arizona Habitat Connectivity Planning Group. This Group will identify important habitat linkage corridors throughout the state, rank the linkages based on importance and imminent threats, and provide linkage information to resource and transportation agencies within the state. Officials can then use this information when developing project plans, and accommodate wildlife linkage in a more efficient and effective manner.

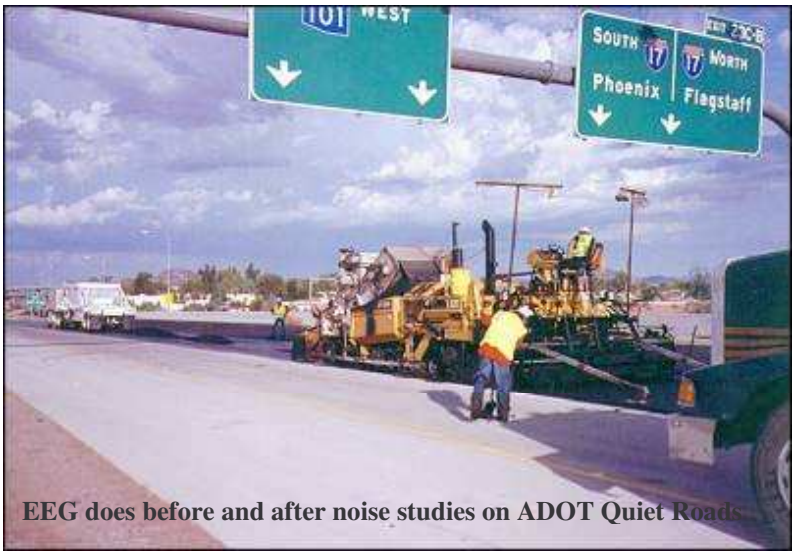
EEG prepared an on-line video regarding the protection of the desert tortoise

Environmental Technical Section

This Section includes the historic preservation team, the air/noise team, and the hazardous materials team. Each of these teams accomplished substantial improvements in their operations in the 2004 FY, highlights of which are presented here.

Quiet Pavement Program

Rubberized asphalt has become a key factor in ADOT's quest to minimize freeway noise. The Quiet Pavement Program was initiated when ADOT overlaid the US 60 concrete paved Superstition Freeway with rubberized asphalt. The reduction of noise on this freeway, which carries over 150,000 vehicles per day, was so dramatic that freeway drivers, property owners along the freeway, and residents all across the Regional Freeway System began to inquire as to why other sections of freeway could not be resurfaced to reduce the noise. ADOT requested and received permission from the FHWA to use rubberized asphalt as a demonstration noise mitigation strategy, and worked with the Maricopa Association of Governments and other local governments to fund the program. The first Quiet Pavement Program project in the summer of 2003 covered approximately 23 miles of the concrete freeway at a cost of about $5,500,000. Approximately 78,000 tons of rubberized asphalt was placed, recycling about 265,000 used tires. About 75% of freeway noise is generated at the tire pavement interface, making quieter pavements one of the most effective forms of noise mitigation. The frequency range from rubberized asphalt is lower than with concrete surfaces, reducing the higher pitched frequencies that are more irritating to homeowners and freeway drivers.



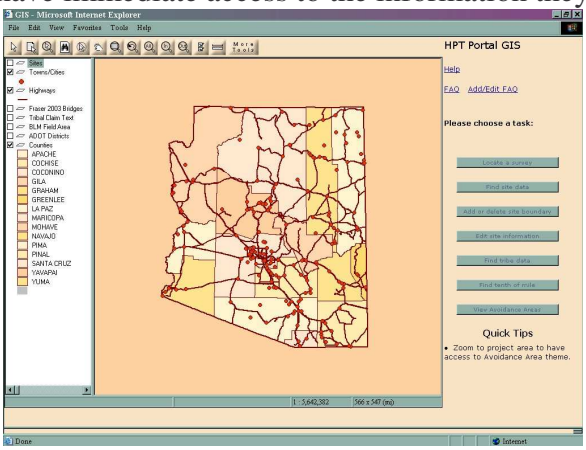
EEG does before and after noise studies on ADOT Quiet Roads

Historic Preservation Team

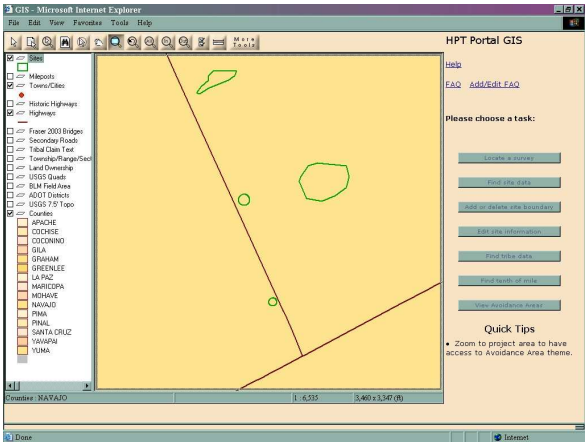
The EEG Historic Preservation Team (HPT) is responsible for ensuring that ADOT projects comply with State and Federal laws that protect cultural resources. The HPT is charged with overseeing cultural resources surveys on ADOT- maintained roadways, maintaining a record of the locations of significant cultural resources, ensuring that ADOT projects avoid significant cultural resources, seeking concurrence from the State Historic Preservation Officer (SHPO) regarding appropriate treatment of the resources, and finally, ensuring that there is a record of these activities for future


Important Arizona Cultural Resource Sites can be very near highways.

reference. This responsibility covers an extensive area within the State, and the HPT is therefore, responsible for managing a large amount of data. The HPT has developed a web-based project management portal (Portal) to facilitate these activities by organizing all of the relevant information in an easily retrievable manner. All available cultural resources survey reports from 1985 to the present were scanned and entered into the Portal. This information is stored by reference to the state route and milepost locations of the survey. The cultural resource survey information can be retrieved through a text search engine or a Geographic Information System (GIS) interface. The results of a search request, either through the text or GIS interface, present a summary table of the information for the report, and a link to the associated document viewable in searchable Portable Document Format (PDF). In addition to storing the survey reports, the Portal also provides for the storage of all associated correspondence with agencies as it relates to each report. The Portal currently houses 1730 reports, containing information on 4200 sites. The Portal refines and greatly increases the efficiency of the process of evaluating potential impacts to significant cultural resources. In addition to the ability to retrieve the survey documents, the Portal GIS also displays the location of all cultural resources recorded and reported in the survey documents. To minimize the potential for looting of valuable sites, access to the Portal is strictly limited. The HPT Portal has become a well-used tool within the HPT and has improved efficiency in the completion of cultural projects. The Portal allows the HPT to have immediate access to the information they need to conduct their business.



The opening page of a GIS screen allows any subarea to be selected for further consideration.



In the selected subarea, the green dots identify areas where cultural resources have been identified.

Hazardous Materials Team

Team activities included partnering with the Arizona Department of Water Resources and ADOT Equipment Services to design and construct well capping systems that can be used to protect open water wells from becoming conduits for contamination and a safety hazard. These devices were necessitated by the numerous wells on property in rural areas that ADOT is acquiring for roadway construction. In addition to multiple fast-track hazardous materials clearances, the team also cleared over 280 sites of possible asbestos contamination, and has worked on developing agency policies to standardize asbestos investigations of bridges.